IN THE SPECIFICATION

Please replace paragraphs [0001], [0033], [0035], [0040], [0041], [0042], [0043], [0044] and [0049] with the following replacement paragraphs:

[0001] This application is related to U.S. Application Serial No. 10/382,208 filed March 5, 2003, titled "Pluggable Electronic Module and Receptacle with Heat Sink", now issued U.S. Patent No. 6,816,376, the complete disclosure of which is hereby incorporated by reference in its entirety.

[0033] The module assembly 102 is illustrated in a latched position wherein removal from the guide frame 122 is prevented. An axial pull on the front end 118 of the module assembly 102 in the direction of arrow A, when latched, is ineffective to remove the module assembly 102. In the latched position, the front end 118 of the module assembly 102 extends or protrudes outwardly a specified distance from an EMI gasket collar 231 which is positioned in abutting contact with an interior surface (not shown in Figure 3) of the bezel 108 (shown in Figure 1) in use. The bezel 108 includes a gasket ~~233~~ (not shown) that is permanently fastened thereto, and the collar 231 is positioned in contact with the gasket ~~233~~ for EMI shielding. The gasket ~~233~~ and the collar 231 are more completely described in U.S. Application Serial No. 10/382,208.

[0035] The top wall 128 of the guide frame 122 includes a front portion 186, a rear portion 188, and opposed lateral portions 190, 192 that define a perimeter of the opening 194. The portions 186-192 of the top wall 128 also define a maximum distance that the heat sink 150 (shown in Figures 1 and 2) extends into the cavity 138 (shown in Figure 1) in which the module assembly 102 is contained. The top wall 128 supports the heat sink 150 when the heat sink 150 is mounted over the opening 194. The retention tabs 154 are punched from each of the respective side walls 132, 134 and bent outwardly. The retention tabs 154 engage mating openings 198 in the side rails 156 (shown in ~~Figure 1~~ Figure 4) in the clip 152 (also shown in Figure 1) when the heat sink 150 is attached to the guide frame 122. The retention tabs 154 are triangular in shape, which restricts the clip 152 from movement in both a vertical and horizontal direction relative to

the guide frame 122, although it is recognized that other shapes for the retention tabs 154 may be employed.

[0040] In an illustrative embodiment, and as shown in Figure 5, the receptacle assembly 400 includes four receptacle assemblies 104 fastened to a host board 106, thereby securing the receptacle assemblies 104 ~~is~~ in position relative to one another. It is appreciated, however, that the benefits and advantages of the invention may occur with a greater or lesser number of receptacle assemblies 104, and with the use of a variety of receptacle assemblies 104, including but not limited to the XFP standard and SFP module standards.

[0041] In an illustrative embodiment, the receptacle assembly 400 includes inner receptacle assemblies 410 and outer receptacle assemblies 412. Each outer receptacle assembly 412 includes an exterior side wall 414 that engages the heat sink clip side rails, as described below. Each exterior side wall 414 ~~include~~ includes retention tabs 416, such as, for example, retention tabs 154 described above. Each receptacle assembly 104 is substantially aligned and positioned on the circuit board 106 in close proximity with the adjacent receptacle assembly 104 so as to minimize the total space used on the circuit board 106, and as such the receptacle assemblies 104 have a length 418 which spans from one exterior side wall 414 of an outer receptacle assembly 412 to the other exterior side wall 414 of the opposed outer receptacle assembly 412.

[0042] Figure 6 is an exploded perspective view of the receptacle assembly 400 including heat sinks 150 positioned adjacent the respective receptacle assemblies 104, corresponding interposer spring elements, or members 450, and a heat sink clip 430 thereon. The top wall 128 of the guide frames 122 of each of the receptacle assemblies 104 have a large opening 194 overlying a cavity 138 which accommodates a heat sink, such as, for example, heat sink 150 (shown in Figure 2). Each of the heat sinks 150 ~~are~~ is positioned to make physical contact with corresponding module assemblies 102 (not shown) when the module assemblies 102 are installed into the receptacle assemblies 104. A heat sink clip 430 extends over and interacts with all of the heat sinks 150 and spans the length of the guide frames and is secured to the outer receptacle assemblies 412 via the retention tabs 416 on the exterior side walls 414 of each outer

receptacle assembly 412. By using a single clip 430 with a plurality of receptacle assemblies and heat sinks 150, the receptacle assemblies may be spaced closer to one another than if each receptacle assembly employed its own heat sink clip. An amount of space occupied on the host board 106 by the assembly 400 is therefore reduced.

[0043] The receptacle assembly 400 also includes interposer spring members 450 that engage the heat sinks 150 and are actuated by the heat sink clip 430, as described below. The heat sink clip 430 and the interposer spring members 450 ensure that each of the heat sinks 150 are loaded against the module assemblies 102 (not shown) by providing a downward normal force on the heat sinks 150 to facilitate thermal transfer from each module assembly 102 to the respective heat sinks 150. Each of the heat sinks 150 ~~include~~ includes an engagement surface that faces and is located proximate the interior cavities 138 of each of the guide frames 122. The engagement surfaces of the heat sinks 150 are configured to physically contact and abut against the module assemblies 102 when installed in the interior cavities 138.

[0044] Figure 7 is a perspective view of an exemplary embodiment of the heat sink clip 430 which couples the heat sinks 150 to the guide frames 122 via the interposer spring members 450 as shown in Figure 6. The heat sink clip 430 includes opposite side rails 432 connected by retention beams 434 extending from the upper edges 436, and the side rails 432 each include engagement openings 438 for interfacing engagement with the retention tabs 416 (shown in Figures 5 and 6) in the exterior side walls 414 of each outer receptacle assembly 412. The retention beams 434 have a length 444 which corresponds to the length 418 of the plurality of receptacle assemblies 104, as shown in Figure 5, such that the side rails 432 frictionally engage the exterior side walls 414 of the outer receptacle assemblies 412. Each side rail 432 further includes a release aperture 440 that facilitates insertion of a tool, such as a screwdriver, to remove the heat sink clip 430 from the exterior side walls 414 of each outer receptacle assembly 412. A screwdriver or other tool may be inserted in the release aperture 440 to permit prying of the side rails 432 away from the guide frames 122, thereby releasing the rails 432 from beneath the retention tabs 416 and permitting removal of the heat sink clip 430 from the guide frames 122. The side rails 432 further include outwardly flared lower edges 442 to facilitate insertion of the

heat sink clip 430 over the heat sinks 150 and the exterior side walls 414 of each outer receptacle assembly 412.

[0049] As such, the receptacle assembly 400 provides a plurality of receptacle assemblies having heat sinks configured to physically contact transceiver modules when installed. The heat sinks ~~dissipates~~ dissipate heat generated in the modules and ~~facilitates~~ facilitate a data transmission rate of 10 Gbs through the assembly.